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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,301	09/09/2003	Mark W. Lehnert	SXS-100-B	2135
7590 10/01/2004			EXAMINER	
Thomas D. Heimholodt Young & Basile, P.C. Suite 624 3001 West Big Beaver Road Troy, MI 48084			CHUKWURAH, NATHANIEL C	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/658,301	Applicant(s) LEHNERT ET AL.	
	Examiner Nathaniel C. Chukwurah	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 16-28, 30 and 32 is/are rejected.
- 7) ☒ Claim(s) 13, 15, 29 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/13/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12, 17, 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by McKendrick (US 4,644,848).

McKendrick discloses an apparatus (10) and method for controlling an impact tool comprising: an inlet port (36), a fluid (compressed air) pressure regulator (28), a sensor (conductor 44), a central processing unit (48) for receiving output signal from the sensor in accordance with a program stored in the memory and a supply hose (fluid passage means 38).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-9, 16, 18, 20, 22-25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKendrick in view of Lysaght (US 6,055,484).

McKendrick is silent about comparing output signal bench marks stored in memory.

McKendrick is capable of comparing output signal bench marks stored in the memory.

Therefore, it would have been obvious to one skilled in the art to provide the program of McKendrick with also the process of comparing output signal bench marks stored in memory in order to determine when the output pressure precisely corresponds with the desired output pressure which has been called for by the computerized control.

McKendrick is silent about setup process for each fastener tightening cycle to be learned and output signal from a sensor during a free air run process. However, Lysaght teaches such setup process for each fastener tightening cycle to be learned (see abstract) and output signal from a sensor during a free air run process, and rehit cycle for setting a threshold value.

Therefore, it would have been obvious to one skilled in the art to provide the program of McKendrick with setup process for each fastener tightening cycle to be learned and a free air run process, and rehit cycle for setting a threshold value in order to determine when the output pressure precisely corresponds with the desired output pressure which has been called for by the computerized control (col. 2, lines 34-37).

Although the transducer of McKendrick is not connectible between the tool and the fastener, McKendrick's transducer can be connectible between the tool and the fastener. Therefore, it would have been obvious to one skilled in the art to connect the transducer of McKendrick between the tool and the fastener as desired in order to generate the needed signal.

Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKendrick in view of Lysaght and further in view of Bickford et al. (US 4,864,903).

Kendrick and Lysaght disclose a transducer (16 and 12) but are silent about receiving torque signal from transducer. However, Bickford et al. teaches transducer (26, see col. 9, lines

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55-57) and central processing unit (microprocessor 30) for receiving torque signal from transducer (col. 9, lines 66-68). Further, Bickford et al. teaches manual torque value input by an operator using a torque wrench during a preset pressure fastener tightening cycle (col. 3, lines 8-10).

In view of the teachings of Bickford et al., it would have been obvious to one skilled in the art to modify the program of McKendrick with central processing unit (microprocessor 30) for receiving torque signal from transducer in order to obtain the significant advantages of faster operation of the wrench, eliminate or reduce operator error, more reliable and accurate operation of the wrench to impose the desired torque on the fastening element and ability to obtain a documented history of the tightening of the fastener (Bickford et al. col.3, lines 32-37).

Claim 10, 11, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKendrick in view of Bickford et al. (US 4,864,903).

McKendrick apparatus and method lacks an error proofing program for each fastener tightening cycle.

Bickford et al. teaches an error proofing program for each fastener tightening cycle (col. 3, lines 33-35).

Therefore, it would have been obvious to one skilled in the art to provide the modified the program of McKendrick with an error proofing program for each fastener tightening cycle in order to obtain the significant advantages of faster operation of the wrench, eliminate or reduce operator error, more reliable and accurate operation of the wrench to impose the desired torque

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on the fastening element and ability to obtain a documented history of the tightening of the fastener (Bickford et al. col.3, lines 32-37).

Allowable Subject Matter

Claims 13, 15, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathaniel C. Chukwurah whose telephone number is (703) 308-6385. The examiner can normally be reached on M-F 6:00AM-2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (703) 308-2187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nc



SCOTT A. SMITH
PRIMARY EXAMINER